

Appl. No. 10/623,391
Amdt. dated December 12, 2005
Reply to Office Action of September 12, 2005
Attorney Docket 14832

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A cross flow fan for a cleaning system of an agricultural combine, comprising:

a plurality of elongate fan blades supported in an axial cylindrical pattern about a rotational axis of the fan by disk shape fan blade mounting members located adjacent axial ends of the blades and rotatable about the axis, the fan blades having radial outer end portions defining an outer diameter of the fan, radial inner end portions opposite the radial outer end portions, and curved intermediate portions between the radial end portions, respectively;

wherein each of the fan blades is oriented such that the radial outer end portion is at about a 28° angle to a line tangent to the fan diameter at the radial outer end portion defined as the angle between the tangent of the outer blade edge relative to the tangent of the fan diameter and the radial inner end is directed radially inwardly directly toward the axis.

2. (Original) The cross flow fan of claim 1, wherein the radial outer end portions of adjacent ones of the fan blades are spaced apart by between about 2.3 and 2.4 inches.

3. (Original) The cross flow fan of claim 2, wherein the radial inner end portions of the adjacent ones of the fan blades are spaced apart by between about 1.6 and 1.7 inches.

4. (Original) The cross flow fan of claim 3, wherein each fan blade has an overall width as measured between the radial end portions thereof of between about 2.5 and 2.6 inches.

5. (Original) The cross flow fan of claim 4, wherein the curved intermediate portion of each of the fan blades has a radius of curvature of between about 2.0 and 2.1 inches.

6. (Currently Amended) The cross flow fan of claim 1, wherein the disk shape fan blade mounting members each include axially facing curved grooves for receiving and holding longitudinal ends of the fan blades, at least the grooves of a center one of the fan blade mounting members member at the middle of the fan being adapted for receiving and holding alternating ones of the blades extending in opposite directions.

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7. (Currently Amended) A cross flow fan for an agricultural combine for generating and directing a flow of air to a cleaning system of the combine, comprising:

a plurality of elongate fan blades supported in an axial cylindrical pattern about a rotational axis by disk shape fan blade mounting members located adjacent axial ends of the blades and rotatable about the axis, each of the fan blades having a radial outer end portion defining an outer diameter of the fan, a radial inner end portion opposite the radial outer end portion, and a curved shape extending between the radial end portions;

wherein each of the fan blades is oriented such that the radial outer end portion is oriented at about a 28° angle to a line tangent to the fan diameter at an outer blade edge of the radial outer end portion and the radial inner end portion is oriented such that a line tangent thereto will pass through the axis.

8. (Original) The cross flow fan of claim 7, wherein the radial outer end portions of adjacent ones of the fan blades are spaced apart by between about 2.3 and 2.4 inches.

9. (Original) The cross flow fan of claim 8, wherein the radial inner end portions of the adjacent ones of the fan blades are spaced apart by between about 1.6 and 1.7 inches.

10. (Original) The cross flow fan of claim 7, wherein each fan blade has an overall width as measured between the radial end portions thereof of between about 2.5 and 2.6 inches.

11. (Original) The cross flow fan of claim 7, wherein the curve shape of each of the fan blades has a radius of curvature of between about 2.0 and 2.1 inches.

12. (Currently Amended) The cross flow fan of claim 7, wherein the disk shape fan blade mounting members each include axially facing curved grooves for receiving and holding longitudinal ends of the fan blades, at least the grooves of a center one of the fan blade mounting members member at the middle of the fan being adapted for receiving and holding alternating ones of the blades extending in opposite directions.

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13. (Original) The cross flow fan of claim 7, wherein the fan has a diameter of from about 15 to about 16 inches.

14. (Currently Amended) A cross flow fan for an agricultural combine for generating and directing a flow of air to a cleaning system of the combine, comprising:

a plurality of elongate fan blades supported in an axial cylindrical pattern about a rotational axis by disk shape fan blade mounting members located adjacent axial ends of the blades and rotatable about the axis, each of the fan blades having a radial outer end portion defining an outer diameter of the fan, a radial inner end portion opposite the radial outer end portion, and a curved shape extending between the radial end portions;

wherein the fan has a diametrical extent of from about 15 to about 16 inches and each of the fan blades is oriented such that the radial outer end portion is oriented at about a 28° angle to a line tangent to the fan diameter at an outer blade edge of the radial outer end portion and the radial inner end portion is oriented such that a line tangent thereto will pass through the axis.

15. (Original) The cross flow fan of claim 14, wherein the radial outer end portions of adjacent ones of the fan blades are spaced apart by between about 2.3 and 2.4 inches.

16. (Original) The cross flow fan of claim 15, wherein the radial inner end portions of the adjacent ones of the fan blades are spaced apart by between about 1.6 and 1.7 inches.

17. (Original) The cross flow fan of claim 14, wherein each fan blade has an overall width as measured between the radial end portions thereof of between about 2.5 and 2.6 inches.

18. (Original) The cross flow fan of claim 14, wherein the curve shape of each of the fan blades has a radius of curvature of between about 2.0 and 2.1 inches.

19. (Currently Amended) The cross flow fan of claim 14, wherein the disk shape fan blade mounting members each include axially facing curved grooves for receiving and

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holding longitudinal ends of the fan blades, at least the grooves of ~~a center one of the~~ the fan
blade mounting members ~~member~~ at the middle of the fan being adapted for receiving and
holding alternating ones of the blades extending in opposite directions.